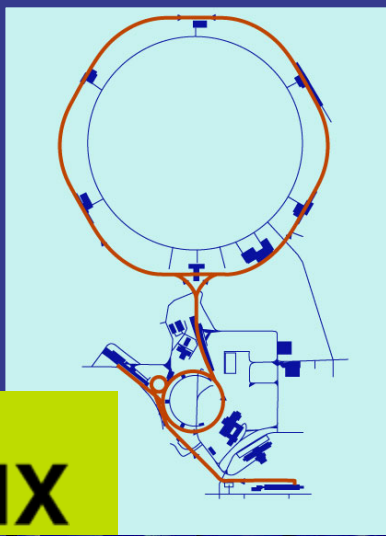
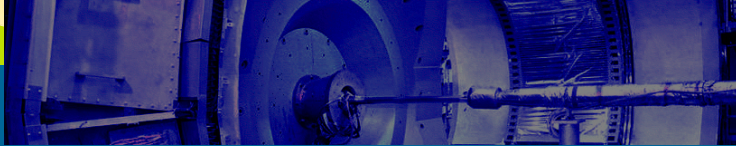


# Henner Büsching

Research Associate



**PHENIX**

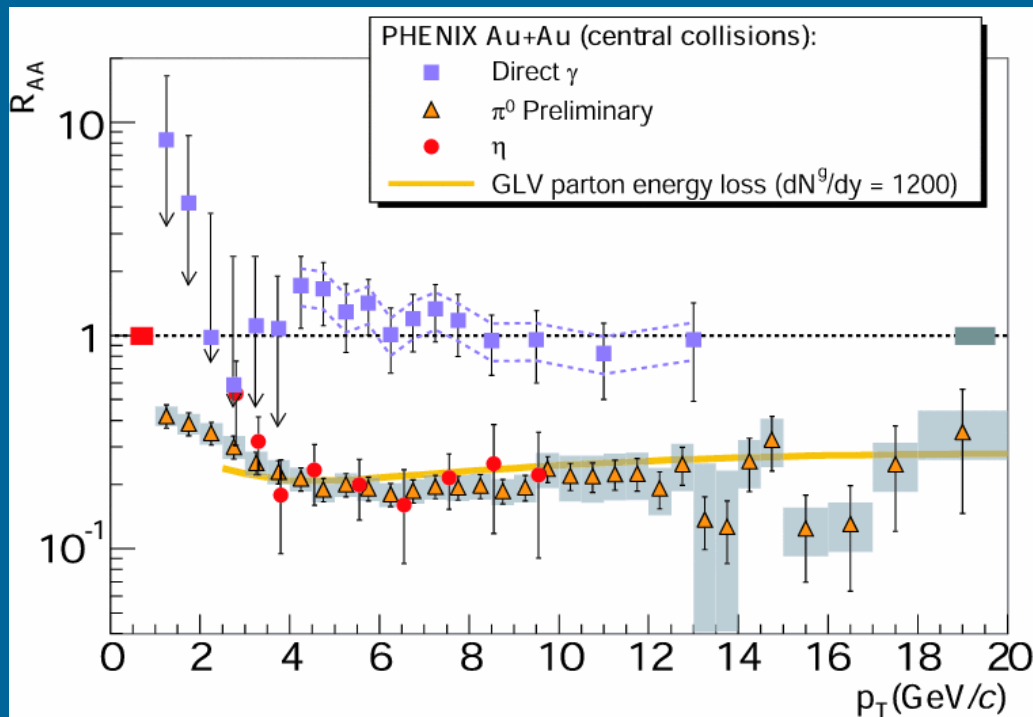
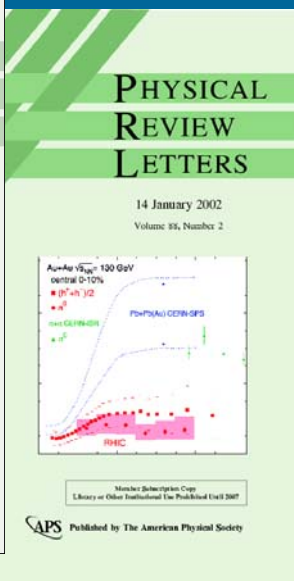
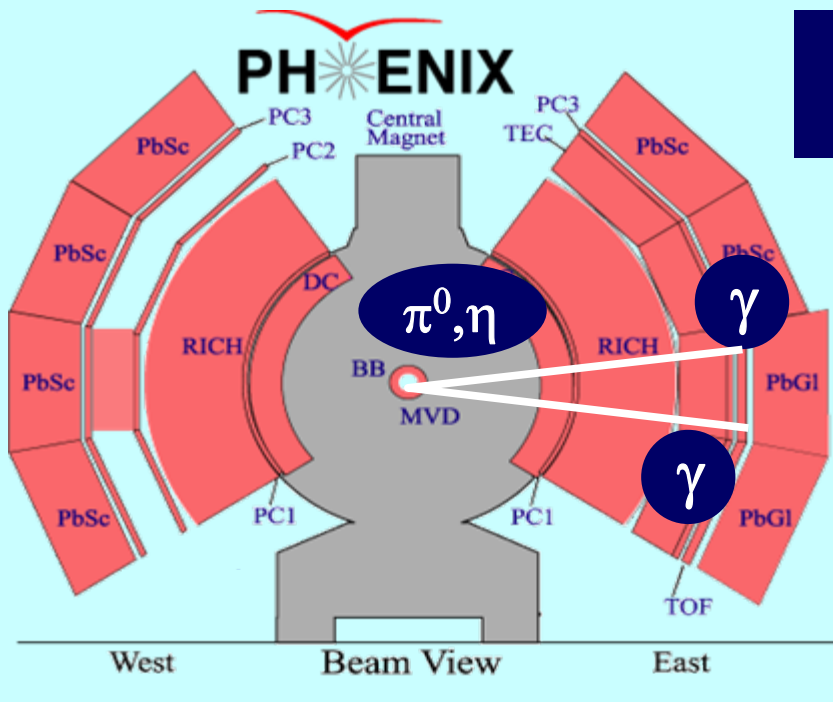


## *My work in the PHENIX-BNL group*

Annual DOE/Nuclear Physics Review of  
RHIC Science and Technology 2006

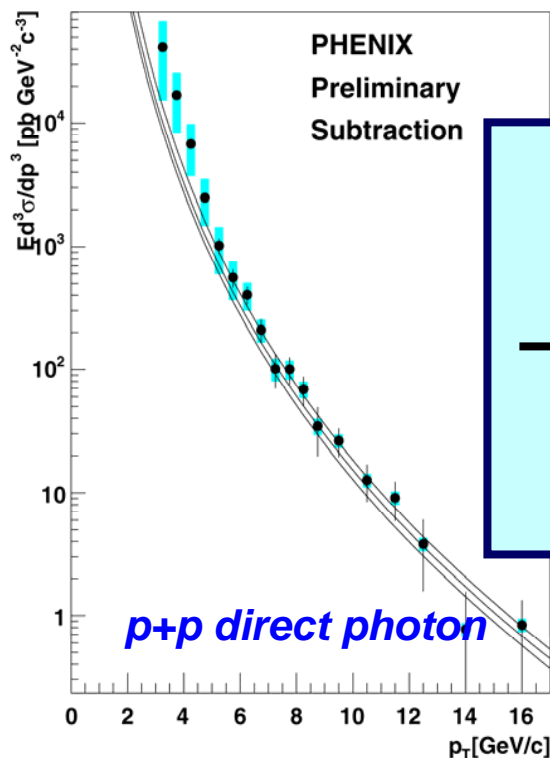
# Introduction: $\gamma, \pi^0, \eta$

- Focal point: High  $p_T$  physics
- EMCal: led by BNL group
- Ideal source of information:  $\pi^0, \eta, \gamma$ 
  - Identified Particles
  - Test different aspects of medium
  - Highest  $p_T$  measured at RHIC



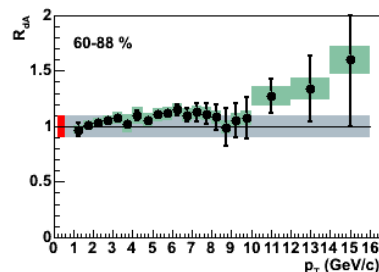
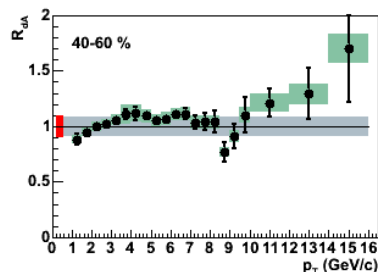
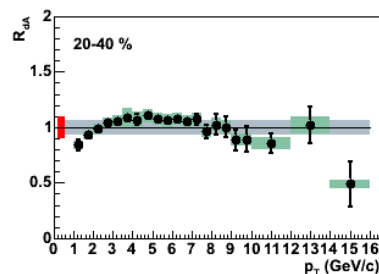
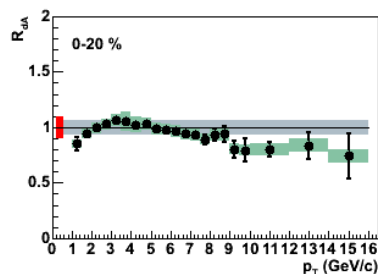
# My contribution

- Important reference: p+p
  - Test agreement with pQCD
- Important cross check: d+Au
  - Test initial state effects
- Important study:
  - Map out different production mechanisms



p+p  
d+Au

Au+Au  
Cu+Cu



p+p

d+Au

Cu+Cu

Au+Au

22.4 GeV

62.4 GeV

130 GeV

200 GeV

$\gamma$

$\pi^0$

$\eta$

# My conclusion

- **BNL group has a key status within the PHENIX collaboration**
- **Opportunities for young group members**
  - Participation in leading analyses of the collaboration
  - Participation in important detector projects
  - Possibility to take responsibilities
- **Potential to advance scientific career as postdoc:**
  - I am co-convenor of PHENIX photon physics working group
  - I am/was member of 4 paper preparation groups
  - I am/was member of two internal review committees
  - I organized the PHENIX Focus seminar series for the last three years
  - I could participate in the BNL outreach programs
  - I was selected PHENIX plenary speaker at Quark-Matter 2005
- **I will move on to Frankfurt University/Germany very soon**